

Date: Monday, 3/17/2008 11:57:18 AM
 User: Kim Johnston

Process Sheet

Customer	CU-DAR001 Dart Helicopters Services		Drawing Name	AFT CROSSTUBE		
Job Number	38041					
Estimate Number	10377					
P.O. Number	:		Part Number	D2890		
This Issue	: 3/17/2008	S.O. No. :	Drawing Number	D2890 REV B		
Prsht Rev.	: NC		Project Number	N/A		
First Issue	: / /	Type : PURCHASED PARTS	Drawing Revision	B		
Previous Run	: 38040		Material	:		
Written By	:	<i>Jones 03/17</i>	Due Date	: 4/4/2008	Qty:	1 Um: Each
Checked & Approved By	:					
Comment	Est. D	05.03.21	Removed Bending procedures	KJ/JLM		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :	
1.0	D6008180	Crosstube extrusion	
		Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)	
		Pick:	
	Qty	Part #	Description
	1	D6008-180	Crosstube extrusion
		Batch	<i>B34688 DP 8-3-31</i>
2.0	BENDING	BENDING MACHINE	
		Comment: BENDING MACHINE	<i>DP 8-3-31</i>
		1-Bend D2890 as per Dwg D2890 and Folio FT002	<i>(PIC)</i>
3.0	QC6	DIMENSIONAL CHECK	
		Comment: DIMENSIONAL CHECK	
4.0	LANDING GEAR 1	LANDING GEAR RESOURCE 1	
		Comment: LANDING GEAR RESOURCE 1	<i>NIA</i>
		1-Deburr and Polish	
5.0	HAND FINISHING1	HAND FINISHING RESOURCE #1	
		Comment: HAND FINISHING RESOURCE #1	<i>NIA</i>
		Chemical Conversion Coat as per QSI 005 4.1	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D2890 PAR #: N/A Fault Category: Dred/x-tube NCR: Yes No DQA: D Date: 08/04/14.
 QA: N/C Closed: D Date: 08/04/14

NCR: 38041		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
0803.31	2.0	Tube is over bent by 0.9875" on one side. R.C. & New program being made for the new bender.	CP 08/03/31	- Quarantine tube; identify with P/N: B# for future un-bend testing per PAR. - Replace QFI B34688	0803.31 18-7-31	✓ 08/04/31	✓ 08/03/31	✓ 0803.31
08.04.01	2	Tube is over bent by 0.2" on one side, 0.3" on other. This is the replacement tube.	CP 08.04.01 QSI 042	Tube acceptable. Cut at 29.9" to maximize width.	N/A 080402	✓ 080402	CP 080402 per 080402	✓ 080402
08.04.01	2	Tube over bent by 0.9875.	CP 08.04.01 QSI 042	SCRAP TUBE.	✓ 080402	✓ 080402	✓ 08/04/01	✓ 080402

NOTE: Date & initial all entries

Date: Monday, 3/17/2008 11:57:18 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: AFT CROSSTUBE

Job Number: 38041

Part Number: D2890

Job Number:



Seq. #: Machine Or Operation:

Description :

6.0 QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

7.0 PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: W/O 37950

08-04-02

①

8.0 QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



mf 08-04-03

100%

W

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

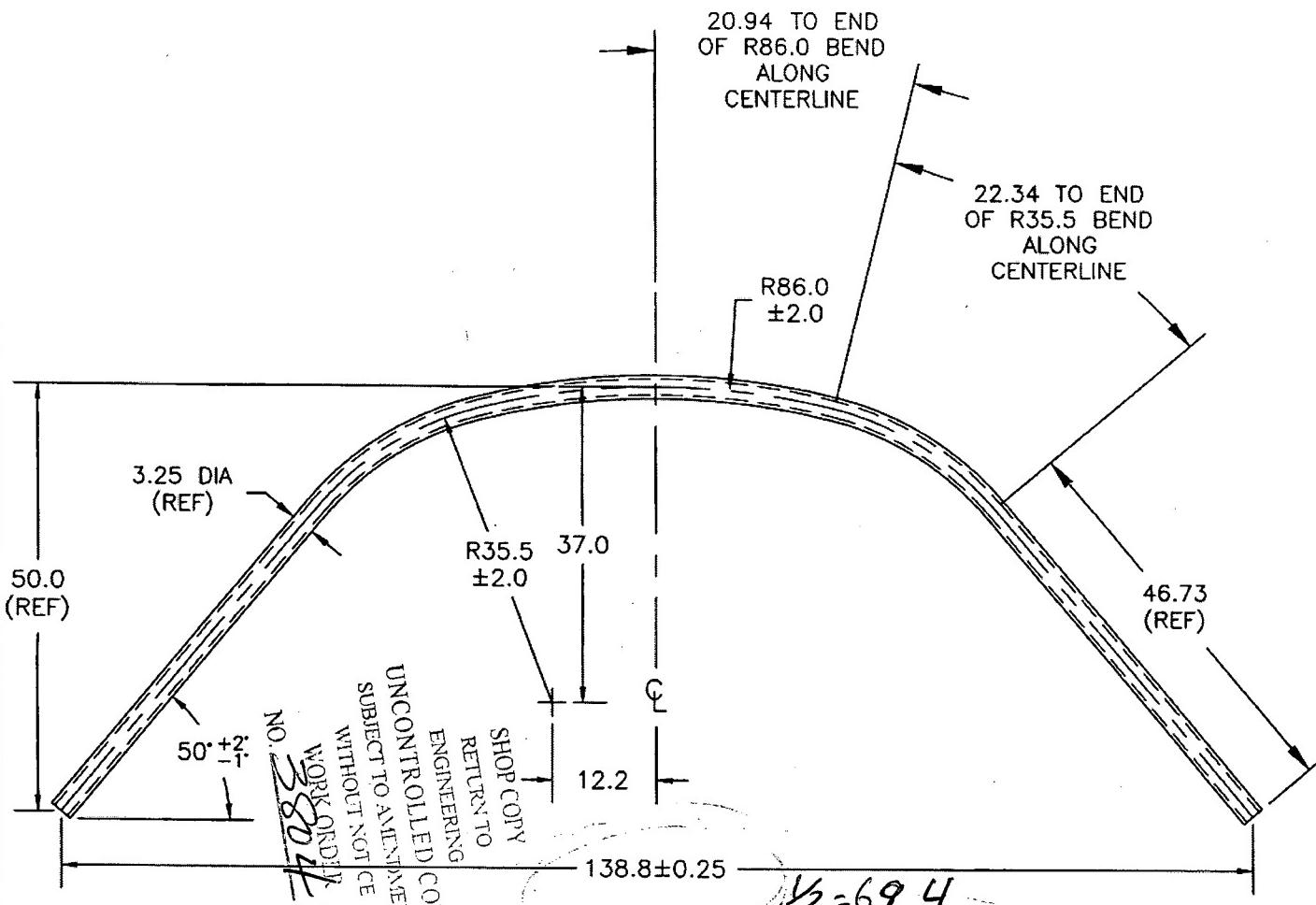
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART
RELEASED
 02.10.28

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
CHECKED	APPROVED	DRAWING NO.	D2890	REV. B
DATE	TITLE	SHEET 1 OF 1		
02.10.18	AFT CROSSTUBE			1:20
A	99.05.21	NEW ISSUE		
B	02.10.18	ADD TANGENT LENGTHS; CHANGE NOTES		

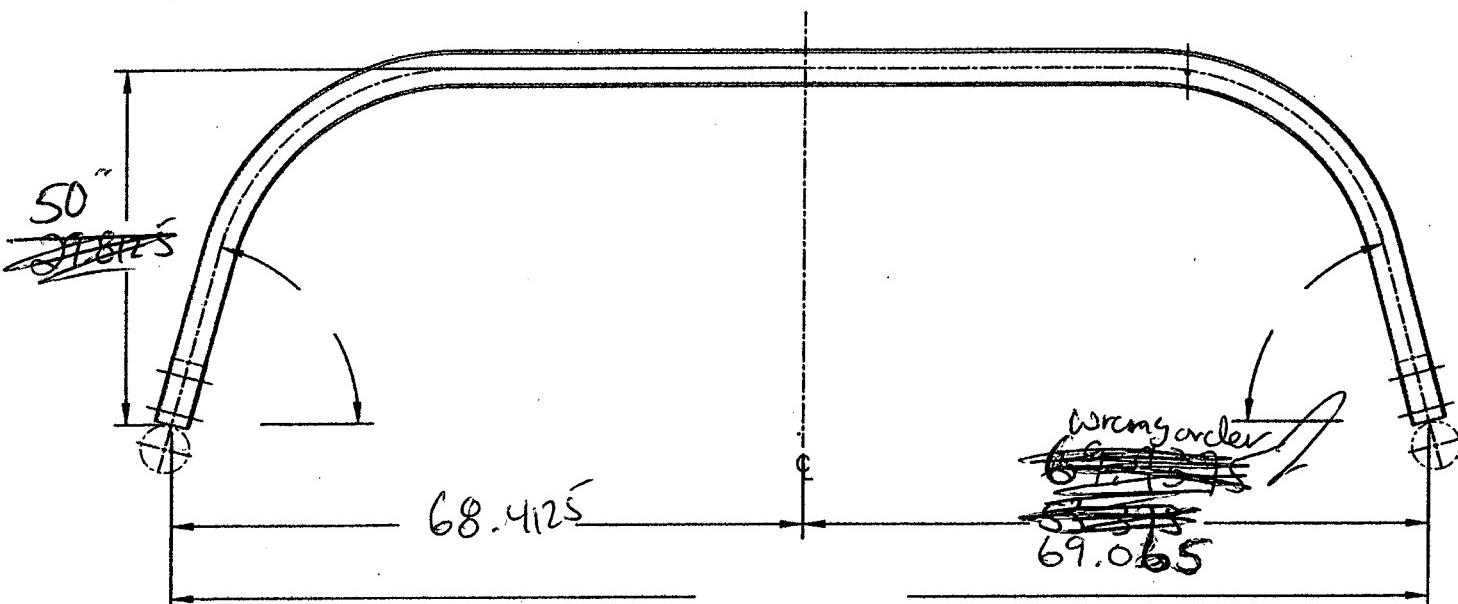
**NOTES**

- 1) MATERIAL: MANUFACTURE FROM D6008-180 ($\phi 3.25$ OD x 0.438 WALL)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) PART IS SYMMETRIC ABOUT CENTERLINE
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) BEND PROGRESSIVELY WITH MINIMUM OF 3 PASSES
- 6) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.

38041

DART AEROSPACE LTD	Work Order:	38040
Description: Crosstube Aft	Part Number:	D2890
Inspection Dwg: D2890	Rev: B	Page 1 of 1

Required Dimension	Min	Max
Height	49.875	50.125
1/2 Span	69.275	69.525
Angle	49	52
Total Span	138.55	139.05



Comments
Tube → SC VMAP

QC15 Inspection	
Date	

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	